Identity and Necessity

Contingent Identities

A Question about Identity

- How are contingent identities possible?
  - A question about this question: *are* they?

Some Data

- In 1919, Poland's Prime Minister was Poland's greatest Pianist, viz. Paderewski.
    - So, (PPM = PGP)
- In the 1920s, Poland's greatest pianist was a pioneer of zinfandel wine near Paso Robles, CA.
    - So, (PGP = CPZ).
- PGP in 1919 was the same as PGP in the 1920s
    - So, (PPM = CPZ)
- Still, surely it's *possible* that ~(PPM = CPZ)
    - In fact, though true, that seems unlikely, and so a far cry from *necessary*.
        - So, here is a contingent identity: (PPM = CPZ)

Two Distinctions

- The Necessary/Contingent Distinction

- The *A Priori*/*A Posteriori* Distinction

Necessary/Contingent

- The Character of this Distinction
    - This is a metaphysical distinction.
- The Distinction
    - A proposition is necessarily true/false *iff* it is true/false and could not possibly have been false/true (or as Leibniz suggests, a proposition is necessary *iff* it is true in all possible worlds).
    - A proposition is contingent *iff* it is true in some possible worlds and false in others.
        - A sentence is necessarily true/false *iff* given its meaning it could not possibly have been false/true; that is, it is true/false in every possible world where it means what it does in this world.
        - A sentence is contingent *iff* it is true in some worlds and not others.

The *A Priori*/*A Posteriori* Distinction

- The Character of this Distinction
    - This is an epistemological distinction.
- The Distinction
    - One has *a priori* knowledge that p *iff* one knows p by reason or conceptual resources alone (that is, the extra-mental world makes no contribution to the justification of p).
    - *A posteriori* knowledge is knowledge that is not *a priori*.
        - N.b. this is a point about justification, not genesis.

A Co-extensivity Hypothesis (CH)

- Although drawn from different domains, these distinctions are co-extensive:
  - p is known *a priori* iff p is necessary
  - p is known *a posteriori* iff p is contingent

Expected

- This too, then, makes sense:
  - we could hardly know *a priori* that (PPM = CPZ);
  - after all, (PPM = CPZ) is not analytic;
  - and, as we've just seen, it's not necessary.
- So, our co-extesivity hypothesis remains intact

And yet. . .

1. $(x)(y)[(x = y) \rightarrow (\phi x \rightarrow \phi y)]$

2. $(x) \Box (x = x)$

3. $(x)(y)(x = y) \rightarrow [\Box (x = x) \rightarrow \Box (x = y)]$

4. $(x)(y)[(x = y) \rightarrow \Box (x = y)]$

Problem Case?

- But what about cases where we seem to have contingent identity statements involving rigid designators, e.g.
  - Hesperus = Phosphorus
  - heat = the motion of molecules
  - Are these not contingent?
  - Did Frege teach us nothing at all?
- Response: the seeming contingency of both these sentences is *merely* a seeming:
  - They're *a posteriori* but necessary.

First Approach

- The traditional co-extensivity hypothesis (CH) is simply false:
  - The *a priori/a posteriori* distinction, as we have ourselves insisted, is an epistemological distinction.
  - The necessary contingent distinction, as again we have ourselves insisted, is a metaphysical distinction.

CH Revisited

- Why, then, have we presumed co-extensivity?
  - One has the easy, almost inevitable thoughts that:
    - No amount of empirically given evidence can vouchsafe necessity.
      - It remains permanently possible that we shall uncover disconfirming evidence in some future experience.
    - Heading in the other direction, once we have grasped something genuinely necessary, it may seem that it cannot concern the unstable structures of the empirically given world.
      - Plato's presumption: the empirically given world is shifting, context-sensitive, imprecise, and generally suffers the compresence of opposites (see *Phaedo* 79b-d).
        - Knowledge of the necessary requires stability, invariability, precision—in short, it requires abstract entities as its objects.

One Question

- What is grasped in such cases?
  - What are the objects known, whether *a priori* or *a posteriori*?
    - Let us hypothesize to begin: propositions
      - *p* is a proposition $=_{df}$ (i) *p* is a structured abstract mind- and language-independent entity; (ii) *p* is truth-evaluable; and (iii) *p* has essentially the truth conditions it has
        - So, it seems that every proposition is essentially *assertoric*.

Next Question

- When we know (4), which proposition do we know?
  - Recall (4): $(x)(y)[(x = y) \rightarrow \Box (x = y)]$
    - So far, this definitely seems to be necessary.
      - It also seems to be something known *a priori,* if at all.
        - It seems, in fact, to be a pretty good candidate for being a Platonic Proposition.

So, It Might Seem

- *Every* identity statement is necessary.
- And yet, there undoubtedly exist contingent identity *statements*.
- For example: 'The first postmaster general is identical with the inventor of bifocals.'
    - Evidently, this is: (i) an identity statement; (ii) true; and (iii) contingent.

It's *De Re* Time

- 'Provided that the notion of modality *de re*, and thus of quantifying into modal contexts, makes any sense at all, we have quite an adequate solution to the problem of avoiding paradoxes if we substitute descriptions of the universal quantifiers in (4) because the only consequence we will draw, for example, in the bifocals case, is that there is a man who both happened to have invented bifocals and happened to have been the first Postmaster General of the United States, and is necessarily self-identical.' —Kripe, (MCR, 221)

The Object of Belief?

- This treats "The first postmaster general is identical with the inventor of bifocals.' as a substitution instance of (4).

- (4), though, seems a *Perfectly Platonic Proposition*.

Platonic Propositions

- *p* is a Platonic proposition =$_{df}$ (i) *p* is a proposition; (ii) p is context-free; (iii) *p* is non-temporally indexed; and (iv) *p* is truth-invariant.
    - So, not: Tobias is sitting down at t^1.
        - And not: Kansas is flat.
            - But rather: Squares have four sides.
                - Indeed, one might pile in: (i) the truths of logic; (ii) the truths of mathematics; and (iii) all analytic truths
                - N.b.: These all are pretty likely necessary and known *a priori*, if at all.
                    - Others?

The Necessary *A Posteriori*

- Anything which is a substitution instance of (4) should be knowable *a priori*, if (4) itself is.
  - (4) seems to say: everything is such that it is necessarily self-identical.
    - So, by UI: *a* is necessarily self-identical.
- Or, rather: everything is such that whenever x and y are the same thing, x and y are necessarily self-identical.
  - So, by UI: whenever *a* and *b* are the same thing, *a*, that is *b*, is necessarily self-identical; and *b*, that is *a*, is necessarily self-identical.
    - (4) does *not* say: whenever *a* and *b* are extensionally equivalent, *a* is necessarily identical with *b* and *b* with *a*.
    - Nor does (4) say: whenever two properties ϕ and ψ are co-instantiated that ϕ and ψ are necessarily co-instantiated.

Finally

- 'To state finally what *I* think, as opposed to what seems to be the case, or what others think, I think that in both cases, the case of names and the case of theoretical identifications, the identity statements are necessary and not contingent. . . How can one possibly defend such a view? Perhaps I lack a complete answer to this question, even though I am convinced that the view is true. But to begin an answer, let me make some distinctions that I want to use. The first is between a *rigid* and a *nonrigid* designator.' —Kripke (CRM, 225-226)

Thesis: RD

- Identity statements are necessary when the identity operator is flanked by two rigid designators (RD).

- A rigid designator designates (picks out, denotes, refers to) the same thing in all possible worlds in which that thing exists. Moreover, it designates nothing at all in those possible worlds in which that thing it designates in the actual world does not exist.

- One core claim: ordinary proper names are rigid designators.

Caveats

- A RD designates the same object in every world in which that object exists.
    - The object denoted by an RD need not exist in every possible world.
- The thesis is not that an RD must be used in every world as it is in this world.
    - We can imagine a possible world in which a given RD is used differently from the way it is used in the actual world.
        - ‘IP’ is only contingently a designator of IP.

Worry

- Perfectly Platonic Propositions are certainly necessary, if true.
- They also seem, however, knowable *a priori*.
    - So, to our question: what is the object known such that it is both necessary and *a posteriori*?